DOCUMENT RESUME

ED 208 516 EA 014 061

AUTHOR Hentschke, Guilbert; Cline, Harold
TITLE Educational Career Mobility Under Organizational Growth and Contraction.
INSTITUTION Rochester Univ., N.Y. Graduate School of Education and Human Development.
SPONS AGENCY Spencer Foundation, Chicago, Ill.
PUB DATE Apr 81
NOTE 67p.; Paper presented at the Annual Meeting of the American Educational Research Association (Los Angeles, CA, April 13-17, 1981).

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS Administrator Characteristics; Attendance; *Career Ladders; Elementary Secondary Education; *Faculty Mobility; *Faculty Promotion; Institutional Characteristics; Racial Composition; Reading Achievement; Sex; Tables (Data); Teacher Characteristics; Teaching Experience; Trend Analysis
IDENTIFIERS *Career Patterns; *Chicago Public Schools IL

ABSTRACT

To trace career patterns in education, researchers analyzed logitudinal data from the payroll and personnel files of 29,000 educators in the Chicago (Illinois) public school system. Nine types of positions were identified, including classroom and nonclassroom teachers, vice-principals, principals, specialists, and central office administrators. The variables examined comprised educators' sex, age, ethnic group, training, experience, and absenteeism, as well as the schools' proportion of nonwhite students, average reading levels, student attendance, and faculty characteristics. Analysis reveals little movement along career paths and only small chances for advancement, primarily because there is very little turnover. Males are more likely to gain promotions than females, but ethnic characteristics do not appear to affect promotion probabilities. Given declining enrollments in Chicago but a slight increase in staffing, projections for the next five years indicate low rates of turnover and heavier representation of males in central administrative, nonclassroom teaching, and specialist positions. (Author/RW)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED208516

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
This document has been reproduced as received from the person or organization originating it.
Minor changes have been made to improve reproduction quality.
Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

EDUCATIONAL CAREER MOBILITY UNDER ORGANIZATIONAL GROWTH AND CONTRACTION.*

Guilbert Hentschke

Harold Cline

Graduate School of Education and Human Development
University of Rochester
Rochester, New York 14627

EA 013 681

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
G. Hentschke
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

EDUCATIONAL CAREER MOBILITY UNDER ORGANIZATIONAL GROWTH AND CONTRACTION.*

Guilbert Hentschke

Harold Cline

1981 Annual Meeting
American Education Research Association
Los Angeles

April 13-17, 1981

*We wish to acknowledge the support of the Spencer Foundation which, through a grant to the Center for Urban Education, Chicago Public Schools, made this work possible. Our thanks are also extended to many dedicated professional educators in District 299 who helped us during the course of the study. The contents of the study are, of course, our own and do not necessarily reflect the views of the above people or organizations.

Table of Contents

Section	
Overview	1
Major Findings	3
Background of the Study	7
Stocks and Flows	13
Stocks and Flows in Chicago	15
The Effect of Low Turnover on Career Paths	19
Career Paths in Chicago	21
"Promotion" and "Demotion" of Subgroups	27
Characteristics of Movers between Classroom and Nonclassroom School-based Teaching Positions	31
Characteristics of the Peer Groups of Movers Between Classroom and Nonclassroom School-based Teaching Positions	35
Student Characteristics and Probabilities of Movement	37
Leaving the System	38
Entering the Workforce	41
Tracing Out the Implications of Manpower Flows	51
Conclusions and Discussion	57

List of Tables

Number	Description	Page
1	The Education Workforce, 1977-78 and 1978-79	2
2	Degree of Stability Within Job Classifications	2
3	Career Paths Involving More than .5% of the Workforce	4
4	Career Paths Involving More than 40 People	4
5	Career Paths: 1977-78 to 1978-79	6
6	"Promotion" Probabilities Among Major Positions	8
7	"Demotion" Probabilities Among Major Positions	8
8	School Level Distribution of Movers: Classroom-Nonclassroom	10
9	Age Distribution of Movers: Classroom-Nonclassroom	10
10	Sex Distribution of Movers: Classroom-Nonclassroom	12
11	Movers Years of Experience: Classroom-Nonclassroom	12
12	Movers' Schools: Years of Faculty Experience	14
13	Movers' Schools: Days Taken Off by Faculty	14
14	Movers' Schools: Proportions of Minority Faculty	16
15	Movers' Schools: Graduate Training of Faculty	16
16	Movers' Schools: Amount of Teacher Absenteeism	18
17	Movers' Schools: Amount of Staff Turnover	18
18	Movers' Schools: Proportions of Non-White Pupils	20
19	Movers' Schools: Proportions of Students Reading One or More Years Behind Grade Level	20
20	Movers' Schools: Proportions of Students Reading Two or More Years Behind Grade Level	22
21	Movers' Schools: Proportions of Student Absenteeism	22
22	Exit Patterns by Sex and Race	24
23	Age Distribution of Leavers	24
24	Experience of Leavers	26
25	School Level Distribution of Leavers	26
26	Graduate Training of Leavers	28
27	Leavers' Schools: Years of Faculty Experience	28
28	Leavers' Schools: Amount of Teacher Absenteeism	30
29	Leavers' Schools: Proportion of Minority Faculty	30
30	Leavers' Schools: Proportion of Student Absenteeism	32

List of Tables (cont.)

Number	Description	Page
31	Leavers' Schools: Proportion of Non-White Pupils	32
32	Leavers' Schools: Proportion of Students Reading One or More Years Behind Grade Level	34
33	Leavers' Schools: Proportion of Students Reading Two or More Years Behind Grade Level	34
34	Entry Patterns by Sex and Race	36
35	School Level Distribution of Entrants	36
36	Age Distribution of Entrants	38
37	Experience of Entrants	38
38	Absenteeism among Entrants	40
39	Entrants' Schools: Graduate Training of Faculty	40
40	Entrants' Schools: Years of Faculty Experience	42
41	Entrants' Schools: Amount of Teacher Absenteeism	42
42	Entrants' Schools: Proportion of Minority Faculty	44
43	Entrants' Schools: Amounts of Staff Turnover	44
44	Entrants' Schools: Proportion of Non-White Pupils	46
45	Entrants' Schools: Proporion of Student Absenteeism	46
46	Entrants' Schools: Proportion of Students Reading One or More Years Behind Grade Level	48
47	Entrants' Schools: Proportion of Students Reading Two or More Years Behind Grade Level	48
48	Five Year Projection of Total Workforce: "Optimistic Projection"	50
49	Five Year Projection of Total Workforce: "Pessimistic Projection"	50
50	Five-Year Change in Composition of Positions	52
51	Composition of Workforce by Major Subgroups in Five Years	52
52	Five-Year Change in Composition of Subgroups Across Positions	54
53	Five-Year Change in Subgroups Within Positions	56

OVERVIEW

This study is part of a larger effort to gain insight into career patterns in labor intensive industries. Previous studies have examined flows of educational administration students through graduate programs, flows of recruits through three years in the U.S. Navy, and flows of faculty through a university. This study examines the flows of the education workforce in a school system, the Chicago Public Schools. It is presented in two parts. The first part, presented here under the title "Analysis of Managerial Manpower Flows in the Chicago Public Schools," describes the current stocks and flows of the educational workforce. Answers to the following questions were sought: What are the characteristics of the major career paths currently in operation? How is the long run composition of positions changing within the school system? How are major race/sex subgroups faring in movement along career paths? What are the characteristics of "entrants" to the workforce versus "leavers" from the workforce? What do these trends imply for the future quality and composition of the education workforce in the Chicago Public Schools?

The data was drawn from the payroll/personnel files of the Chicago Public Schools. The files are designed to provide data on career paths and to yield detailed information on a variety of measures of individual and job-related characteristics. While comprehensive in design, the conversion of the data to machine readable form was not completed at the time the study was undertaken. As a consequence, many important questions about the workforce could not be addressed directly. For example, data on certificates

TABLE 1

THE EDUCATION WORKFORCE, 1977-8 and 1978-9

Classification	1977-78	1978-79
Administration - Central	666 (2.6)	657 (2.7)
Principals	501 (2.0)	523 (2.1)
Assistant Principals	480 (1.9)	434 (1.7)
Teachers - Central Office	1,363 (5.4)	1,357 (5.3)
Teachers - Non-classroom High School	62 (.3)	184 (.7)
Teachers - Classroom High School	8,198 (32.5)	8,174 (32.0)
Teachers - Non-classroom Elementary School	241 (1.0)	431 (1.7)
Teachers - Classroom Elementary School	13,321 (52.7)	13,310 (52.1)
Specialists	455 (1.8)	490 (1.9)
	25,287 (100%)	25,560 (100%)

TABLE 2

DEGREE OF STABILITY WITHIN JOB CLASSIFICATIONS, BETWEEN 1977-78 and 1978-79

	Retention 77-8 and 78-9	
Classification	Number	Percent
Administration	644	96.7
Principals	501	100.0
Assistant Principals	369	76.9
Teachers - Central Office	1,326	97.3
Teachers - Non-Classroom High School	41	66.1
Teachers - Classroom High School	7,970	97.2
Teachers - Non-Classroom Elementary School	199	82.6
Teachers - Classroom Elementary School	12,899	96.8
Specialists	452	99.3

earned, test scores such as the National Teachers Exam, salaries associated with jobs, and race codes other than black and white were either unavailable or unuseable. Of course, all individual identifications (e.g., social security number) were removed from the tapes before they were provided to us, so that no identification of individuals was possible.

The second part of the study, "Career Patterns of the Educational Workforce," is an attempt to reconcile what we have learned about the workforce in the Chicago Public Schools with national data and previous studies about the careers of public school educators. This part of the study will be available in May, 1981.

Major Findings

The findings of the study are not encouraging either from the perspective of management or from the perspective of the individual employee. There is little movement along career paths, primarily because there is little turnover (about 3.1%). Consequently, chances for advancement are very small (about 1.6%). At best there appears to be movement within five job clusters, but not up a career ladder as may have once been the case.

Although the chances of promotion are small, they do exist. However, different subgroups face different probabilities of promotion and demotion. After making certain necessary assumptions about what constitutes promotion and demotion, it appears that males are more likely to gain promotions than females. Racial membership does not appear to affect promotion probabilities. School factors (the characteristics of a school's faculty and student body) also affect an individual's chances of promotion and

TABLE 3

Career Paths:
More than .5% of the Workforce per Year

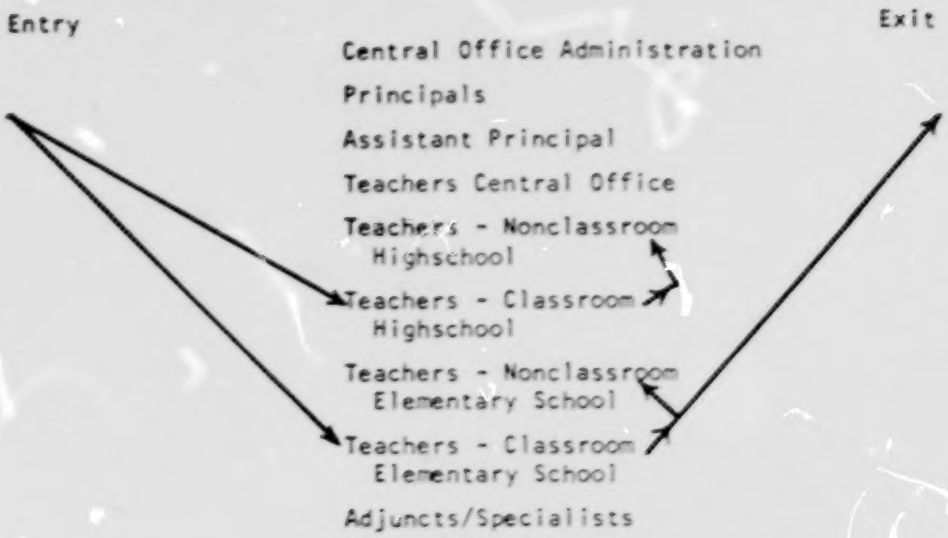
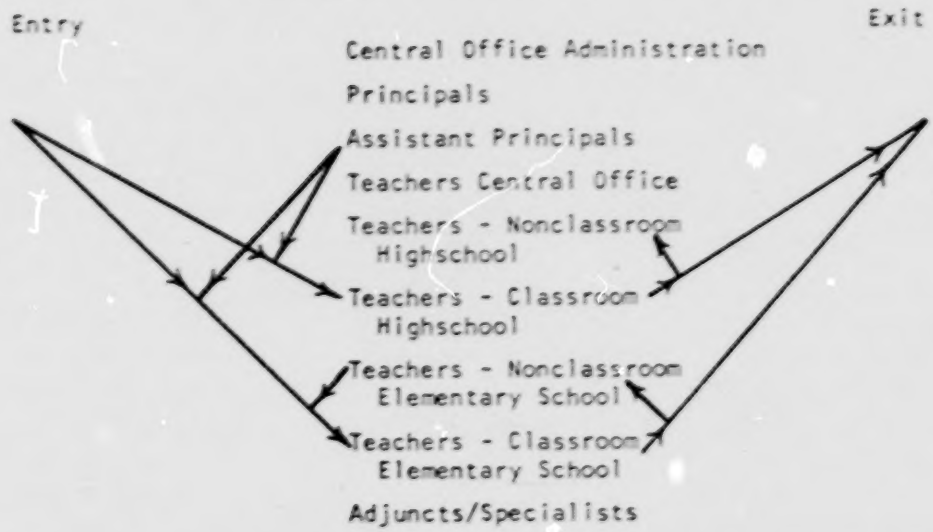


TABLE 4

Career Paths:
More than 40 People per Year



demotion.

Individuals leave the system through four major "ports"; the majority leave from classroom teaching positions. School factors are strongly associated with leaving rates. Individuals are more likely to leave the system from schools where the faculty are less formally educated, have more years of experience, experience high absenteeism, and have low to moderate proportions of minority faculty members. Students in these schools have low absenteeism, low proportions of nonwhite pupils, and low proportions reading one or more years behind grade level.

What these data are likely describing is the process whereby teachers with seniority are enabled to transfer to schools where the quality of students is perceived as being higher. This cohort of teachers is likely to have relatively high proportions of faculty who are leaving to retire.

One of the commonly held concepts about educational organizations facing decline is that recruitment for vacancies becomes increasingly internal. This does not appear to be the case in Chicago. Individuals are recruited into the system at all levels of the organization and in numbers roughly in proportion to the total number at each level in the organization. It is possible for larger numbers of new people in a position to come from outside the organization than from within the ranks.

The short run (five-year) changes in the workforce will reflect primarily changes in the position structure of the system (e.g., proportionately fewer classroom teachers). Low rates of turnover will forestall any major changes in the overall race or sex composition

TABLE 5

CAREER PATHS - CHICAGO PUBLIC SCHOOLS
1977-8 to 1978-9

TO: 1978-79 (retention and loss)

FROM: 1977-78 (retention and gain)

	1	2	3	4	5	6	7	8	9	10	1977-78
1. Administration - Central Office	644 (96.7)	4 (.6)		1 (.2)		5 (.8		8 (1.2)	1 (.2)	3 (.5)	666
2. Principals		501 (100.0)									501
3. Assistant Principals			369 (76.9)	3 (.6)	7 (1.5)	42 (8.8)	12 (2.5)	47 (9.8)			480
4. Teachers - Central Office			1 (.1)	1326 (97.3)					13 (1.0)	23 (1.7)	1363
5. Teachers - Non-Classroom High School					41 (66.1)	21 (33.9)					62
6. Teachers - Classroom High School	1 (.0)		31 (.3)		128 (1.6)	7970 (97.2)				28 (1.0)	8158
7. Teachers - Non-Classroom Elementary School					1 (.4)		199 (82.6)	41 (17.0)			241
8. Teachers - Classroom Elementary School		7 (.1)	31 (.2)				212 (1.6)	12859 (96.8)	4 (.0)	168 (1.3)	13321
9. Specialists				3 (.7)					452 (99.3)		455
10. Out of System	12 (2.2)	11 (2.0)	12 (2.2)	24 (4.4)	7 (1.3)	136 (25.0)	8 (1.5)	315 (57.8)	20 (3.7)		
1978-79 =	657	523	434	1357	184	8174	431	13310	490		

of the school system. However, males will be more heavily represented in "leadership" positions whereas females will be more heavily represented in staff and direct instruction positions than at present.

Background

Enrollments are going down. School expenditures continue to rise. Traditional revenue bases for schools have not grown as rapidly as ....previously. Business leaders, tax-conscious property owners, and others are concerned about the high expenditures in schools and are increasingly reluctant to continue to increase both the absolute amount of money and proportion of the tax dollar to support the schools. Educators, on the other hand, complain that schools, even holding productivity constant, are under-financed in the face of inflationary costs. The resulting tension between the providers of school revenue and the "education community" is not new but is intensifying.

From 1970 to 1975, the U.S. school-age population (ages 5-17) fell from 52,546,000 to 50,277,000, a drop of 4.3 percent or an annual rate of decline of 0.83 percent.[1] Decline, however, has been especially dramatic in urban schol systems.

Decline in enrollment has not been accompanied by reduction in expenditures. On the contrary, fixed cost commitments have combined with declining enrollments to produce significant increases in expenditures per pupil.[3] In the largest cities in the U.S. the actual dollar expenditures have increased by more than 100% between 1968 and 1976. Inflation accounts for some, but not all of the expenditure increase. Spending per student during the interval 1968-1976 actually recorded a stronger advance than did the consumer price index in cities.[4]

TABLE 6

"PROMOTION" PROBABILITIES AMONG MAJOR POSITIONS (PERCENT) *

From:	To:	Total	Male	Female	Black	White
Teacher-Classroom, Elementary	Teacher-Nonclassroom, Elementary	1.6%	2.8%	1.3%	1.1%	0.8%
Teacher-Classroom, Elementary	Assistant Principal	0.2	0.5	0.2	0.3	0.2
Teacher-Classroom, Elementary	Principal	0.1	0.3	0	0	0.2
Teacher-Classroom, High School	Teacher-Nonclassroom, High School	1.6	2.1	1.1	1.8	1.2
Teacher-Classroom, High School	Assistant Principal	0.3	0.3	0.2	0.3	0.3

*Data on other racial categories not available.

TABLE 7

"DEMOTION" PROBABILITIES AMONG MAJOR POSITIONS (PERCENT) *

From:	To:	Total	Male	Female	Black	White
Administration	A Building Position	2.9%	1.5%	4.4%	3.2%	3.3%
Teacher-Central Office	Teacher-Building	1.0	1.9	0.8	1.2	1.3
Assistant Principal	Teacher	23.1	26.7	19.3	31.2	16.1
Teacher-Nonclassroom, High School	Teacher-Classroom, High School	33.9	16.7	40.9	47.4	42.3
Teacher-Nonclassroom, Elementary	Teacher-Classroom, Elementary	17.(	5.9	20.5	24.2	21.4

*Data on other racial categories not available.

Another measure of prices--the gross national product deflator reflecting the prices of goods and services purchased by state and local governments--is a better indicator of the price pressures experienced by school districts. Again the rate of increase of expenditures per student advanced more strongly than did the deflator index In six urban school systems (New York, Los Angeles, Chicago, Detroit, Houston, and Milwaukee), total expenditures for schools increased at the average rate of 10.1% annually over the last several years. The rate is 12.2% annually when expressed in terms of per/pupil costs. For these same cities the average annual Consumer Price Index increased only 7.6% and the GNP deflator for state and local governments increased only 8.5%.[5]

The observation that the inflationary rate in school budgets exceeds the general inflationary rate is disturbing to taxpayers and responsible school administrators. It is especially disturbing given the marked decline in school enrollment.

Increases in absolute revenue amounts over the last five years have helped to offset increases in expenditures.[6] Nonetheless some urban school systems still found themselves spending in excess of revenues.[7] In a comparative analysis of nine urban systems, only five have maintained a cumulative surplus during the last three years.[8] Given the labor intensive character of education and given the growing discrepancy between costs and revenue, a systematic analysis of personnel flow is called for. Greater knowledge about the procedures by which personnel are secured, advanced, retained, dismissed, and retired is urgently needed. The argument for a study of personnel flow is simple and straighforward. Educational labor

TABLE 8

SCHOOL LEVEL DISTRIBUTION OF MOVERS BETWEEN CLASSROOM AND NON-CLASSROOM SCHOOL-BASED TEACHING POSITIONS

Grade Level	Classroom to Non-Classroom		Non-Classroom to Classroom		Total School-Based Teacher Workforce (%)
	Number	Percentage	Number	Percentage	
Elementary School	204	61.4	38	64.4	62.2
High School	128	38.6	21	35.6	37.8
	332	100 %	59	100 %	100 %

TABLE 9

AGE DISTRIBUTION OF MOVERS BETWEEN CLASSROOM AND NON-CLASSROOM SCHOOL-BASED TEACHING POSITIONS

Age	Classroom to Non-Classroom		Non-Classroom to Classroom		School-Based Teacher Workforce
	Number	Percentage	Number	Percentage	
Under 25 Years	35	11.7	19	32.8	10.7
25 - 29 Years	69	20.8	14	24.1	21.2
30 - 34 Years	57	17.2	9	15.5	17.9
35 - 39 Years	66	19.9	4	6.9	13.7
40 - 44 Years	38	11.4	5	8.6	11.9
45 - 49 Years	36	10.8	4	6.9	10.5
50 - 54 Years	20	6.0	2	3.4	8.0
55 + Years	7	2.1	1	1.7	6.1
	332	100.0%	58	100.0%	100.0%

costs dominate school budget. The tradition of tenure - granting together with the existence of negotiation and arbitration procedures, place severe constraints on how funds can be allocated. New programs, that require personnel with special training and skill, are imposed on local districts without full funding. Rules for personnel selection and advancement that local districts must follow have the full force of law. More carefully planned utilization of personnel is required in order to resolve the budgetary issues facing schools.

The quantity and composition of the urban labor force are critical variables which affect the cost and quality of urban education. We know that the labor force is undergoing change, but the magnitude, direction, and net effect of the change is not understood. For a system (such as Chicago Public Schools) that currently employs a work force of over 50,000 people distributed over 430 different types of positions, and pays them in excess of $600,000,000 annually, this lack of understanding is a special problem. The questions raised in relation to this problem are not unique to Chicago.[9] A report commissioned by the National Institute of Education ("Education Finance and Organization: A Research Agenda for the Future"[10]) speaks to this concern:

> "Two important issues...are the changing nature of the labor force in education and the economic implications that these changes may bring. Both of these topics have important and widespread policy implications... 1. What are the relevant demographic characteristics of the instructional work force in public schools today? How are they expected to change over time under alternative assumptions about the future? 2. What are the profiles of the teachers, other instructional staff, and administrators, in terms of such demographic characteristics as age, educational preparation, professional experience, race and ethnic characteristics, and full-time or part-time status? Have these undergone significant changes over time?"

These are the kinds of questions we seek to answer in this study.

TABLE 10

SEX DISTRIBUTION OF MOVERS BETWEEN CLASSROOM AND NON-CLASSROOM SCHOOL-BASED TEACHING POSITIONS

Sex	Classroom to Non-Classroom		Non-Classroom to Classroom		Total School-Based Teacher Workforce
	Number	Percentage	Number	Percentage	
Male	145	43.7	5	8.5	28.6
Female	187	56.3	54	91.5	71.4
	332	100 %	59	100 %	100 %

TABLE 11

MOVEMENT BETWEEN CLASSROOM AND NON-CLASSROOM SCHOOL-BASED TEACHING POSITIONS BY TEACHERS WHO HAVE VARYING AMOUNTS OF EXPERIENCE

Amount of Experience	Movement from Classroom to Non-classroom		Movement from Non-classroom to Classroom		Total School-based Teacher Workforce	
	Number	Percentage	Number	Percentage	Number	Percentage
Low	94	28.2	29	49.2	5,014	22.7
Moderate	127	38.3	17	28.8	9,086	41.1
High	111	33.4	13	22.0	8,027	36.3
	332	100.0%	59	100.0%	22,127	100.0%

Stocks and Flows. Any attempt to represent the stock of the workforce in the Chicago public schools must of necessity be a compromise between the competing demands. The analysis must be real, and hence complex. On the other hand the demands must be comprehendable and useful, and hence simplified to some degree. There are literally hundreds of position titles for educational personnel within the Chicago public schools. Each of these positions interacts with others in complex ways. Any attempt to aggregate these positions into fewer categories and to isolate general patterns of movement must of necessity obscure the many of the unique characteristics of positions and ideosyncratic movement. Our study is not exempt from this dilemma.

We have chosen to aggregate the variety of positions into nine broad categories: central administration, principals, assistant principals, teachers who are not assigned to any particular school, teachers assigned to high schools but who are not teaching in classrooms, teachers assigned to high schools who are teaching in classrooms, teachers assigned to elementary schools who are not teaching in classrooms, teachers assigned to classrooms in elementary schools, and specialists such as school psychologists.

After preliminary analyses of larger numbers of job categories, it appears that these categories are small enough in number as to be understandable, yet sufficiently different enough from each other to enable us to trace changes in the composition of the workforce. Implicit in this categorization is the presumption on our part that those characteristics that most clearly distinguish one job from another are: the "level" of the workplace, i.e., elementary schools,

TABLE 12

MOVEMENT BETWEEN CLASSROOM AND NON-CLASSROOM SCHOOL-BASED TEACHING POSITIONS IN SCHOOLS WITH VARYING PROPORTIONS OF TEACHER EXPERIENCE (ELEMENTARY)

Proportions of teacher Experience	Movement from Classroom to Non-classroom		Movement from Non-classroom to Classroom		Total School-based Elementary Teacher Workforce	
	Number	Percentage	Number	Percentage	Number	Percentage
High	43	21.5	10	26.3	4,624	33.8
Moderate	67	33.5	5	13.2	4,478	32.8
Low	90	45.0	23	60.5	4,4568	33.4
	200	100.0%	38	100.0%	13,670	100.0%

TABLE 13

MOVEMENT BETWEEN CLASSROOM AND NON-CLASSROOM SCHOOL-BASED TEACHING POSITIONS BY TEACHERS WHO TAKE VARYING NUMBERS OF DAYS OFF

Numbers of Days Taken Off	Movement from Classroom to Non-classroom		Movement from Non-classroom to Classroom		Total School-based Teacher Workforce	
	Number	Percentage	Number	Percentage	Number	Percentage
Low	84	25.3	11	18.6	4,658	21.0
Moderate	127	38.3	26	44.1	8,490	38.3
High	121	36.4	22	37.3	9,015	40.7
	332	100.0%	59	100.0%	22,163	100.0%

high schools, or central offices, and whether or not the job involves a high degree of instructing activity.

Stocks and Flows in Chicago. During the 1977-78 school year, about 25,300 education professionals occupied these nine types of positions in the Chicago public schools (Table 1). Of these 7,638 were male; 17,911, female; 10,011, Black; and 12,774, White. Over half of these personnel were elementary school classroom teachers and nearly one-third were high school classroom teachers. One year later, the overall distribution of personnel was approximately the same. The overall size of the workforce increased by nearly 300, while the number of regular classroom teachers decreased in number and in proportion to the total workforce.

Based only on these data, it appears that the "growth" positions in the Chicago public schools are those that have the smallest absolute number of openings as well as those out of the traditional promotional chain of classroom teacher - school principal - district administrator. The number of nonclassroom teachers in both the high schools and elementary schools is growing quite rapidly, although they still represent very small fractions of the total number of education-related positions in the Chicago public schools. Also, there are discernable decreases in staffing ratios of the school system despite (or because of) reducations in enrollments of nearly 3½% between 1978 and 1979 (512,052 to 494,888). The educational workforce rose by a little over 1% during the same time. While both percentages are small, their interaction is quite significant. The overall ratio of educational staff to students dropped from 20.2 to 19.9.

TABLE 14

MOVEMENT BETWEEN CLASSROOM AND NON-CLASSROOM SCHOOL-BASED TEACHING POSITIONS IN SCHOOLS WITH VARYING PROPORATIONS OF MINORITY FACULTY MEMBERS

Proportion of Minority Faculty	Movement from Classroom to Non-classroom		Movement from Non-classroom to Classroom		Total School-based Elementary Teacher Workforce	
	Number	Percentage	Number	Percentage	Number	Percentage
Low	70	34.8	24	63.2	4,267	31.1
Moderate	69	34.3	6	15.8	4,227	30.8
High	62	30.8	8	21.1	5,241	38.2
	201	100.0%	38	100.0%	13,735	100.0%

TABLE 15

MOVEMENT BETWEEN CLASSROOM AND NON-CLASSROOM SCHOOL-BASED TEACHING POSITIONS IN SCHOOLS WHOSE FACULTY HAVE VARYING PROPORTIONS OF GRADUATE TRAINING

Proportion of Faculty Holding Bachelors Degree Only	Movement from Classroom to Non-classroom		Movement from Non-classroom to Classroom		Total School-based Elementary Teacher Workforce	
	Number	Percentage	Number	Percentage	Number	Percentage
Low	41	20.5	22	57.9	4,442	32.5
Moderate	66	33.0	9	23.7	4,482	32.8
High	93	46.5	7	18.4	4,748	34.7
	200	100.0%	38	100.0%	13,672	100.0%

Largely as a result of these changes in staffing, cost per pupil between these two periods increased approximately 13% ($2,178.72 to $2,460.84). These numbers are consistent with earlier budget increases. More to the point, they represent the net effect of a variety of personnel decisions, including those dealing with the opening and closing of positions, with decisions that cause people to stay in their current positions, to move into new positions from other positions in the organization or to leave the organization. These personnel "decisions" are often the result of factors over which the organization has little control. Nonetheless, they have a dramatic effect on personnel practices and on costs. For example, as environmental factors reduce individual incentives to leave the system before retirement age, fewer openings are created for younger (and less expensive) personnel. Average length of seniority (and average salary) begin to creep up, raising costs disproportionately.

Similar phenomena are occuring within the Chicago public schools. Currently there is comparatively little internal mobility, external recruitment, or individual career advancement. People who occupy a given position in the organization are quite likely to occupy that same position the following year. Consider the case of the school principal, where the available data suggest that no one leaves the principalship (Table 2)! The degree to which "nonmobility" exists varies depending on the types of positions under consideration. For example, only about two out of three nonclassroom high school teachers will be in that position the following year. Assistant principals and to some degree non classroom elementary teachers also seem to experience relatively high degrees of turnover. The very low-turnover

TABLE 16

MOVEMENT BETWEEN CLASSROOM AND NON-CLASSROOM SCHOOL-BASED TEACHING POSITIONS IN SCHOOLS WITH LOW AND HIGH TEACHER ABSENTEEISM

Degree of Teacher Absenteeism	Classroom to Non-classroom		Non-classroom to Classroom		Total School-based Elementary Teacher Workforce	
	Number	Percentage	Number	Percentage	Number	Percentage
Below Median	104	51.0	7	18.4	6,399	46.4
Above Median	100	49.0	31	81.6	7,383	53.6
	204	100.0%	38	100.0%	13,782	100.0%

TABLE 17

MOVEMENT BETWEEN CLASSROOM AND NON-CLASSROOM SCHOOL-BASED TEACHING POSITIONS IN SCHOOLS WITH LOW AND HIGH STAFF TURNOVER (ELEMENTARY LEVEL)

Degree of Turnover	Classroom to Non-classroom		Non-classroom to Classroom		Total School-based Elementary Teacher Workforce	
	Number	Percentage	Number	Percentage	Number	Percentage
Low	55	27.9	14	36.8	4003	29.9
Medium	51	25.9	13	34.2	4046	30.3
High	91	46.2	11	28.9	5320	39.8
	197	100.0%	38	100.0%	13,369	100.0%

positions include those of principal, specialists/adjunct teachers, central office teachers and high school classroom teachers.

Rates of movement are not the same as volume; the first is a function of proportion of movement and the second is a function of absolute size. The largest volume of movement is into classroom positions from outside, from classroom to nonclassroom positions, and to the outside from classroom positions (Tables 3 and 4). As we discuss predominate career paths it is impostant to note that the largest amount of movement is into and out of the bottom of the organization. This patterns reflects the careers of more individuals than any other. Careers that are characterized by increasingly responsible positions within the organization must, by definition, be confined to small proportions of employees.

The Effect of Low Turnover on Career Paths. Because turnover is low, upward mobility is slow, and career "paths" become less visible. We could assume for the sake of argument, that one likely traditional career path would be high school teacher to assistant principal to principal to administration in the central office. Due to low turnover/no growth in Chicago the probabilities of movement along this "likely" path are so low as to be nonexistant. A high school teacher has a three-tenths-of-one-percent chance of becoming an assistant principal; and an assistant principal has less than a one-tenth-of-one-percent chance of becoming a principal. (Table 5). The low probability of entry to the principalship from the assistant principalship is due in large part to the stabi.ity of in the principal position.

TABLE 18

MOVEMENT BETWEEN CLASSROOM AND NON-CLASSROOM SCHOOL-BASED TEACHING POSITIONS IN SCHOOLS WITH VARYING PROPORTIONS OF NON-WHITE PUPILS

Proportions of Non-white Students	Classroom to Non-classroom		Non-classroom to Classroom		Total School-based Elementary Teacher Workforce	
	Number	Percentage	Number	Percentage	Number	Percentage
Low	29	14.4	20	52.6	2,678	19.5
Moderate	60	29.7	4	10.5	2,303	16.7
High	113	55.9	14	36.8	8,774	63.8
	202	100.0%	38	100.0%	13,755	100.0%

TABLE 19

MOVEMENT BETWEEN CLASSROOM AND NON-CLASSROOM SCHOOL-BASED TEACHING POSITIONS IN SCHOOLS WITH VARYING PROPORTIONS OF STUDENTS READING ONE OR MORE YEARS BEHIND GRADE LEVEL

Proportion of Studentbody Reading One or More Years Behind Grade Level	Movement from Classroom to Non-classroom		Movement from Non-classroom to Classroom		Total School-based Elementary Teacher Workforce	
	Number	Percentage	Number	Percentage	Number	Percentage
Low	69	34.0	20	52.6	4,745	34.5
Moderate	74	36.5	8	21.1	4,394	32.0
High	60	29.6	10	26.3	4,611	33.5
	203	100.0%	38	100.0%	13,750	100.0%

Disparities in the sizes of "sending" and "receiving" positions, along with the low turnover, affect promotion probabilities. For example, the low rate of entry into the assistant principalship from the high school classroom is due less to low turnover in the assistant principal position (it has one of the highest rates), as to the high ratio of assistant principal to high school classroom teacher positions. (Even if there were complete turnover in the assistant principal position every year, only a relatively few high school classroom teachers would be able to fill the positions.)

Career Paths in Chicago. In many respects the concept of career paths as classically defined does not exist in the Chicago Public Schools at this time. That is, discernable flows from entry level positions to positions of increasing authority are not clearly in evidence. Individuals enter the organization at all levels and roughly in proportion to the numbers of positions at each level; but they exit through four major "ports," central office administrative and teaching positions, as well as elementary and high school classroom teaching positions. (Table 5).

While on the "inside" members of the education workforce generally move within, rarely among, six job clusters. For one, there is the learning specialists (psychologists, diagnosticians, therapists) cluster. This growing segment of the workforce draws educators from the outside, but more importantly, draws off some excess teachers in from the central office and classrooms. It also provides a preparation ground for teachers assigned to central office.

The second and third clusters can be called instruction centered.

TABLE 20

MOVEMENT BETWEEN CLASSROOM AND NON-CLASSROOM SCHOOL-BASED TEACHING POSITIONS IN SCHOOL WITH VARYING PROPORTIONS OF STUDENTS READING TWO OR MORE YEARS BEHIND GRADE LEVEL

Proportion of Studentbody Reading Two or More Years Behind Grade Level	Movement from Classroom to Non-classroom		Movement from Non-classroom to Classroom		Total School-based Elementary Teacher Workforce	
	Number	Percentage	Number	Percentage	Number	Percentage
Low	62	31.5	24	63.2	4,490	33.6
Moderate	72	36.5	7	18.4	4,260	31.9
High	63	32.0	7	18.4	4,602	34.5
	197	100.0%	38	100.0%	13,352	100.0%

TABLE 21

MOVEMENT BETWEEN CLASSROOM AND NON-CLASSROOM SCHOOL-BASED TEACHING POSITIONS IN SCHOOLS WITH VARYING PROPORTIONS OF STUDENT ABSENTEEISM

Proportion of Student Absenteeism	Movement from Classroom to Non-classroom		Movement from Non-classroom to Classroom		Total School-based Elementary Teacher Workforce	
	Number	Percentage	Number	Percentage	Number	Percentage
High	81	39.9	12	31.6	5,132	37.3
Moderage	88	43.3	2	5.3	5,408	39.3
Low	34	16.7	24	63.2	3,231	23.5
	203	100.0%	38	100.0%	13,771	100.0%

They involve teachers at the elementary and high school levels who circulate between classroom and nonclassroom positions within their respective levels of school. Within both the high school and elementary levels teachers flow into and out of classroom positions, although in both instances there is a net outflow into nonclassroom positions. Although enrollment declines would have dictated extensive layoffs (causing individuals to leave the system), more teachers shifted into nonclassroom positions than left the system. In one year nonclassroom positions grew 133% in the elementary schools and 297% in the high schools. This, perhaps more than any single phenomenon explains the anomoly of staff growth in the light of enrollment declines.

The fourth cluster is really a revolving door around the position of assistant principal. Individuals enter the assistant principal position from a wide variety of routes (central office teacher, high school classroom teacher, elementary classroom teachers, and recruited from outside the system). They stay a relatively short time (about one quarter turn over each year); and they are "spun out" into a variety of other positions (central office teacher, nonclassroom high school teacher, classroom high school teacher, nonclassroom elementary school teacher, and classroom elementary school teacher). Viewed superficially, the assistant principalship is a "fast track" to nowhere. It does not lead to principalships or to central office administration.

The principalship constitutes another cluster only in the sense that it is not closely linked to building level positions in the school system. More than twice as many individuals moved to the

TABLE 22

EXIT PATTERNS BY SEX AND RACE

Exit From	Total Workforce	All Leavers	Male	Female	Black	White	Other
Administration	2.6%	1.1%	1.7%	0.9%	0%	1.6%	1.1%
Principal	2.0%	0	0	0	0	0	0
Assistant Principal	1.9%	0	0	0	0	0	0
Teacher - Central Office	5.4%	8.5	6.9	8.9	6.9	6.3	9.5
Teacher - Non-classroom, High School	.3%	0	0	0	0	0	0
Teacher - Classroom, High School	32.4%	28.7	51.7	22.4	27.6	25.0	30.2
Teacher - Non-classroom, Elementary	1.0%	0	0	0	0	0	0
Teacher - Classroom, Elementary	52.7%	61.8	39.7	67.8	65.5	67.2	59.2
Adjunct	1.8%	0	0	0	0	0	0
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Number		272	58	214	29	64	179
Row %		100.0%	21.3%	78.7%	10.7%	23.5%	65.8%

TABLE 23

AGE DISTRIBUTION OF LEAVERS FROM THE SCHOOL-BASED TEACHER WORKFORCE

Age	Number	Percentage	Total School-Based Teacher Workforce (%)
Under 25 Years	28	11.4	10.7
25 - 29 Years	43	17.5	21.2
30 - 34 Years	30	12.2	17.9
35 - 39 Years	8	3.3	13.7
40 - 44 Years	14	5.7	11.9
45 - 49 Years	6	2.4	10.5
50 - 54 Years	27	11.0	8.0
55 + Years	90	36.6	6.1
	246	100.0%	100.0%

principalship from outside the system or from central office administration as from building level positions. The principalship is a closed shop in the sense that the chances of becoming a principal or of leaving the principalship for other positions, in the district are small.

Finally, central office administration positions represent their own cluster. The cluster is characterized by little movement, entry largely from the outside, and exit through many routes, largely back into building level positions. (Table 5).

The initial generalizations we can make about career mobility in the Chicago public schools would perhaps apply to many, especially large urban school systems. First, there is little career movement, not to mention advancement. What movement there is is accompanied by no small degree of "demotions" as well as "promotions". Within this context, however, there are distinct career paths with differing probabilities of movement along those paths. Those probabilities will not be altogether stable over time in part because the numbers of certain positions are increasing in number while others are decreasing.

Personnel are recruited into all types of positions from the outside, but appear to exit through four primary positions: classroom teacher at the elementary and secondary levels, central office teacher, and central office administration. There are several possible explanations for this limited number of exit routes. Over 90% of the personnel are found in these four positions. Second, these are logical terminal positions for many personnel, and some fraction of these exits could be retirees.

TABLE 24

LEAVING RATES OF SCHOOL-BASED FACULTY
WITH VARYING AMOUNTS OF EXPERIENCE

Amount of Experience	Number	Percentage	Total School-based Teacher Workforce Number	Percentage
Low	67	27.2	5014	22.7
Moderate	65	26.4	9086	41.1
High	114	46.3	8027	36.3
	246.	100.0%	22,127	100.0%

TABLE 25

SCHOOL LEVEL DISTRIBUTION OF LEAVERS FROM
SCHOOL-BASED TEACHER WORKFORCE

Grade Level	Number	Percentage	Total School-Based Teacher Workforce
Elementary School	168	68.3	62.2
High School	78	31.7	37.8
	246	100 %	100 %

"Promotion" and "Demotion" of Subgroups. Up to this point we have been looking at the interaction of people in positions; we have not made distinctions among types of people except in terms of positions they occupy. There are of course major subcategories of the workforce - e.g., men, women, Blacks, Whites - whose career patterns are of interest, especially if subgroup membership affects the probabilities of movement within the organization. Each member of the workforce has a unique set of human characteristics. Often an individual's chances of moving into another position are deliberately affected by those characteristics. (Teachers without math education certification tend to have a lower probability of entering the secondary teaching work force into a math position than those who have it.) There are, of course, many bases for applying discriminatory criteria when making personnel decisions. Our purpose in conducting the analysis of the careers of subgroups is merely to describe differences which emerge, not to comment on their significance or legitimacy. We have chosen to examine sex and race (Black and White only) differences at this time. Other distinguishing criteria would be at least equally interesting (e.g., verbal ability, age, performance ratings), but were unavailable.

Do men have higher probabilities of promotion than women? Do white educators have higher promotion probabilies than black educators? Consider for example the five most prominent "promotion" probabilities among the major positions. (These transitions are promotions only in the sense that most school personnel consider them to be promotions. They are "major" only in the sense that the probabilities of movement are relatively high.) In four of the five instances, the probabilities

TABLE 26

LEAVING RATES FROM ELEMENTARY SCHOOLS WHOSE FACULTY HAVE VARYING PROPORTIONS OF GRADUATE TRAINING

Proportion of Faculty Holding Bachelors Degree Only	Number	Percentage	Total School-based Elementary Teacher Workforce Number	Percentage
Low	48	28.6	4,442	32.5
Moderate	46	27.4	4,482	32.8
High	74	44.0	4,748	34.7
	168	100.0%	13,672	100.0%

TABLE 27

LEAVING RATES FROM ELEMENTARY SCHOOLS WHOSE FACULTY HAVE VARYING AMOUNTS OF EXPERIENCE

Experience of Faculty	Number	Percentage	Total School-based Elementary Workforce Number	Percentage
Inexperienced	57	33.9	4,568	33.4
Moderately Experienced	42	25.0	4,478	32.8
Experienced	69	41.1	4,624	33.8
	168	100.0%	13,670	100.0%

of promotion are higher for males than for females, blacks, or whites. (Table 6). 1.6% of all elementary classroom teachers were "promoted" to nonclassroom assignments in the elementary schools. 2.8% of the male elementary classroom teachers were promoted as contrasted to 1.3% of the female elementary classroom teachers, 0.8% of the white, and 1.1% of the black elementary classroom teachers (Table 6). Similarly, 0.2% of all classroom elementary teachers were promoted to the position of assistant principal; 0.5% of the male elementary classroom teachers were promoted to assistant principal. The probability of an elementary classroom teacher becoming a principal is 0.1%, but these probabilities jump to 0.3% if one is a male, and to 0.2% if one is white. Based on our data which is of course limited to two years of observations, the probabilities of such a move can drop to less than 0.1% if one is female or black. At the high school level, males are slightly favored over females in promotions from classroom to nonclassroom assignments. But such is not the case for promotions from classroom positions to those of assistant principal.

"Demotion" probabilities favor males as well although not uniformly. Although there is a 2.9% chance of being "demoted" from central office administration to a building position, the probability drops to 1.5% if one is male and jumps to 4.4% if one is female (Table 7).

The chances of being reassigned to a high school classroom for nonclassroom high school teachers are about 33.9%. However, ones chances of being reassigned are only 16.7% if male, but much higher if

TABLE 28

LEAVING RATES IN SCHOOLS WITH LOW AND HIGH TEACHER ABSENTEEISM

(ELEMENTARY SCHOOLS)

Degree of Teacher Absenteeism	Number	Percentage	Total School-based Elementary Teacher Workforce Number	Percentage
Below Median	70	41.7	6399	46.4
Above Median	98	58.3	7383	53.6
	168	100.0%	13,782	100.0%

TABLE 29

LEAVING RATES FROM ELEMENTARY SCHOOLS WHOSE FACULTIES HAVE VARYING PROPORTIONS OF MINORITY MEMBERS

Proportion of Minority Faculty Members	Number	Percentage	Total School-based Elementary Teacher Workforce Number	Percentage
Low	63	37.5	4267	31.1
Moderate	59	35.1	4227	30.8
High	46	27.4	5241	38.2
	168	100.0%	13,735	100.0%

one is female, black or white. A similar pattern exists at the elementary school level. There is a one percent chance of a teacher in a central office position being assigned to a teaching position in a building, but the probability jumps to 1.9% if you are male.

Other groups are favored in other "demotions." There is a 23% probability of going from an assistant principal position to that of a teacher, but those probabilities jump up to 26.7% if one is male and to 31.2% if one is black; they drop to 19.3% if one is female, and 16.1% if one is white.

It is apparent that the bulk of movement among positions in the labor force occurs at the building level among teaching positions. There is about five times as much movement from classroom to non-classroom positions as the reverse, and the numbers of position changes at the elementary and high school levels is approximatley proportionate to the respective sizes of the teacher work-force at each school level. (Table 8). We have implied that nonclassroom positions act in part as "holding tanks" to buffer the effects of enrollment decline on the teacher work force. This is at best a partial explanation of movement. To better understand this movement we need to examine in greater detail: the characteristics of the teachers who move, the characteristics of faculty in schools where movement takes place, and the characteristics of students in the schools where movement is taking place.

Characteristics of movers between classroom and nonclassroom school-based teaching positions. Much like our findings of the

TABLE 30

LEAVING RATES FROM ELEMENTARY SCHOOLS WHOSE STUDENTBODIES HAVE VARYING AMOUNTS OF STUDENT ABSENTEEISM

Amount of Student Absenteeism	Number	Percentage	Total School-based Elementary Teacher Workforce Number	Percentage
High	59	35.1	5132	37.3
Moderate	62	36.9	5408	39.3
Low	47	28.0	3231	23.5
	168	100.0%	13,771	100.0%

TABLE 31

LEAVING RATES FROM ELEMENTARY SCHOOLS WHOSE STUDENT BODIES HAVE VARYING PROPORTIONS OF NON WHITE PUPILS

Proportions of Non White Pupils	Number	Percentage	Total School-based Elementary Workforce Number	Percentage
Low	51	30.4	2,678	19.5
Moderate	30	17.9	2,303	16.7
High	87	51.8	8,774	63.8
	168	100.0%	13,755	100.0%

analysis of the four major race/sex subgroups, individual characteristics alter the probabilities of movement between classroom and nonclassroom school based teaching positions. The age distribution of movers from classroom to nonclassroom positions is approximately the same as the age distribution of the total school-based teacher workforce. However, movement from nonclassroom positions to classroom positions is taking place disproportionately among younger members of the workforce (Table 9). If there is any validity to the concept that moving back to the classroom from a nonclassroom position connotes some form of "demotion" then it appears that younger members of the school-based teacher workforce are being disproportionately demoted.

There also appear to be strong sex differences associated with movement between classroom and nonclassroom school-based teaching positions(Table 10). For example, 28.6% of the teachers who moved between these two types of positions were male. However, males constituted 43.7% of the "promotions", (classroom to nonclassroom), while they constituted only 8.5% of the "demotions", (nonclassroom to classroom).

Teachers with low amounts of experience are underrepresented in the movement out of the classroom and overrepresented in the movement from nonclassroom back into classroom teaching positions (Table 11 and 12).

Although there is not a strong relationship between the number of days a teacher takes off during the school year and the probability of being promoted or demoted, it appears that those who take relatively few days off are overrepresented among those who are promoted, and

TABLE 32

LEAVING RATES FROM ELEMENTARY SCHOOLS WHOSE STUDENT BODIES HAVE VARYING PROPORTIONS OF CHILDREN READING ONE OR MORE YEARS BEHIND GRADE LEVEL

Proportion of Students Reading One or More Years Behind Grade Level	Number	Percentage	Total School-based Elementary Teacher Workforce Number	Total School-based Elementary Teacher Workforce Percentage
Low	71	42.3	4745	34.5
Moderate	52	31.0	4394	32.0
High	45	26.8	4611	33.5
	168	100.0%	13,750	100.0%

TABLE 33

LEAVING RATES FROM ELEMENTARY SCHOOLS WHOSE STUDENT BODIES HAVE VARYING PROPORTIONS OF CHILDREN READING TWO OR MORE YEARS BEHIND GRADE LEVEL

Proportion of Students Reading Two or More Years Behind Grade Level	Number	Percentage	Total School-based Elementary Teacher Workforce Number	Total School-based Elementary Teacher Workforce Percentage
Low	75	46.0	4490	33.6
Moderate	44	27.0	4260	31.9
High	44	27.0	4602	34.5
	163	100.0%	13,352	100.0%

slightly underrepresented among those who are "demoted". (Table 13).

Characteristics of the peer groups of movers between classroom and nonclassroom school-based teaching positions. Characteristics of the workplace in addition to those already identified (e.g., level of school) alter the probabilities of moving between classroom and nonclassroom positions in schools. Those associated with the mover's peer group are discussed here. The general conclusion is that who one works with is associated with one's chances of moving to a new position. For example, the chances of being either "promoted" or "demoted" are less if one works in a school with a relatively high proportion of minority faculty members. The probabilities of moving from a nonclassroom position back into a classroom position are nearly 3 times as high in a school with a low proportion of minority faculty (Table 14).

The probabilities of moving from a classroom to nonclassroom position ("promotion") are significantly higher in schols where high proportions of the faculty hold only a Bachelor's degree; in fact they are more than twice as great. "Demotions" are less likely. The probabilities of movement from a nonclassroom back to a classroom position are about 1/3 as great in these schools (Table 15). One's chances of being promoted are relatively less, and of being demoted are relatively greater, in schools with above average degrees of teacher absenteeism (Table 17). Where then are the "fast-tracks" in this organization characterized by low career mobility? When moving out of the classroom to nonclassroom positions the best opportunities lie in schools characterized by faculty with less formal training, low teacher absenteeism, and high teacher turnover.

TABLE 34

ENTRY PATTERNS BY SEX AND RACE (%)

Entry Into:	Total Workforce	All Entrants	Male	Female	Black	White	Other
Administration	2.6	2.0	2.8	2.0	1.6	2.5	*
Principal	2.0	2.0	4.2	1.2	1.6	2.9	*
Assistant Principal	1.9	2.0	3.5	1.7	3.2	2.1	*
Teacher - Central Office	5.4	4.4	4.9	4.3	4.2	2.9	*
Teacher - Non-classroom, High School	.3	1.3	2.8	.8	0	.4	*
Teacher - Classroom, High School	32.4	25.0	42.7	18.7	28.0	26.1	*
Teacher - Non-classroom, Elementary	1.0	1.5	2.8	1.0	0	0	*
Teacher - Classroom, Elementary	52.7	58.0	32.2	66.9	58.2	61.0	*
Adjunct	1.8	3.7	4.2	3.5	3.2	2.1	*
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
Number		545	153	402	189	241	115
Row %		100.0%	26.2%	73.8%	34.7%	44.2%	21.1%

* Apparently Unreliable Data

TABLE 35

SCHOOL LEVEL DISTRIBUTION OF ENTRANTS TO CLASSROOM AND NON-CLASSROOM SCHOOL-BASED TEACHING POSITIONS

Grade Level	Entering Classroom Teaching Positions from "Outside"		Entering Non-Classroom Teaching Positions from "Outside"		Total School-Based Teacher Workforce
	Number	Percentage	Number	Percentage	
Elementary School	315	69.8	8	53.3	62.2
High School	186	30.2	7	46.7	37.8
	451	100 %	15	100 %	100 %

Student characteristics and probabilities of movement. Student characteristics are another important factor in describing the working environment, and hence, the probabilities of movement among job positions. One's chances of moving from a classroom to nonclassroom are proportionately higher in schools with moderate proportions of non-white students. Chances of being moved from a nonclassroom to classroom position appear to be much higher in schools with relatively low proportions of non-white students, (Table 18).

Promotion probabilities are not significantly different in schools where children are reading at less than grade level. However, the chances of moving from a nonclassroom back to a classroom position appear to be significantly greater in those schools where relatively few children are reading behind grade level (Table 19 and 20). By working in a schooi where the proportion of student absenteeism is low, one's chances of moving from a classroom to nonclassroom position are reduced, and one's chances of moving from a nonclassroom back into a classroom position are increased (Table 21). The fast track out of the classroom appears to be in schools where the students are racially integrated and have high rates of absenteeism.

Leaving the System. While many teachers are stepping on to the first rung on the ladder up from classroom teaching, others are electing to leave the system. The long run "health" of a labor intensive industry such as education is in large part determined by qualitative changes in its workforce. "Quality" is an illusive concept, difficult to specify to the satisfaction of all involved. Despite our inability to measure it directly, we know that quality (however measured) is changed when people leave the organization and

TABLE 36

AGE DISTRIBUTION OF ENTRANTS TO CLASSROOM AND NON-CLASSROOM SCHOOL-BASED TEACHING POSITIONS

Age	Entering Classroom Teaching Positions from "Outside"		Entering Non-Classroom Teaching Positions from "Outside"		Total School-Based Teacher Workforce
	Number	Percentage	Number	Percentage	
Under 25 Years	96	21.3	6	40.0	10.7
25 - 29 Years	84	18.7	3	20.0	21.2
30 - 34 Years	71	15.8	2	13.3	17.9
35 - 39 Years	49	10.9	2	13.3	13.7
40 - 44 Years	44	9.8	1	6.7	11.9
45 - 49 Years	37	8.2	0	0	10.5
50 - 54 Years	35	7.8	1	6.7	8.0
55 + Years	34	7.6	0	0	6.1
	450	100.0%	15	100.0%	100.0%

TABLE 37

ENTRANTS TO THE SCHOOL-BASED TEACHER WORKFORCE WHO BRING WITH THEM VARYING AMOUNTS OF EXPERIENCE

Years of Experience	Entering Classroom Teaching Positions From "Outside"		Entering Non-classroom Teaching Positions From "Outside"		Total School-based Teacher Workforce	
	Number	Percentage	Number	Percentage	Number	Percentage
Few	168	37.3	13	86.7	5,014	22.7
Moderate	150	33.3	1	6.7	9,086	41.1
Many	133	29.5	1	6.7	8,027	36.3
	451	100.0%	15	100.0%	22,127	100.0%

when new people are recruited into the organization. Certain bundles of skills, aptitudes, and experience are lost to be replaced by other bundles. Although we can not objectively measure quality directly, we can look at the characteristics of people who leave the organization and the nature of jobs from which they left and attempt to determine if they are "different" in some ways from the people who don't leave and from the jobs these "stayers" occupy. To the extent that the people and the jobs they hold are in some way different, we may be able to infer implications for the long run health of the organization.

Personnel leave the system largely through four major "ports": administration, teacher central office, teacher highschool classroom, and teacher elementary classroom. There are proportionately more leavers through high school classroom and central office teacher positions, although over half of the people leaving the school system leave from the position of elementary classroom teacher (Table 22). Leavers are disproportionately female. (Table 22).

People leave the system at all different ages, although, as one migh suspect of a mature or nongrowing organization, proportionately more leave sometime after they reach 50 years of age. A little over 14% of the workforce is 50 years of age or over, yet almost half of the leavers come from this age group. The numbers of people who leave in the 35 and under age group, tend to be slightly less than proportionate to the total workforce; however, the numbers leading in the 35 to 50 age group, are significatly less than proportionate for the total workforce. (Table 23). It seems as if there is a middle-career period between initial job-

TABLE 38

ENTRANTS TO THE SCHOOL-BASED TEACHER WORKFORCE
WHO TAKE VARYING AMOUNTS OF DAYS OFF

Numbers of Days Taken Off	Entering Classroom Teaching Positions From "Outside"		Entering Non-classroom Teaching Positions From "Outside"		Total School-based Teacher Workforce	
	Number	Percentage	Number	Percentage	Number	Percentage
Low	127	28.2	10	66.7	4,658	21.0
Moderate	92	20.4	4	26.7	8,490	38.3
High	232	51.4	1	6.7	9,015	40.7
	451	100.0%	15	100.0%	22,163	100.0%

TABLE 39

ENTRANTS TO THE ELEMENTARY SCHOOL TEACHING WORKFORCE INTO SCHOOLS
WITH HIGH AND LOW PROPORTIONS OF STAFF HOLDING ONLY BACHELOR'S DEGREES

Proportion Who Hold Bachelor's Degrees Only	Entering Classroom Teaching Positions from "Outside"		Entering Non-Classroom Teaching Positions from "Outside"		Total School-based Elementary Workforce	
	Number	Percent	Number	Percent	Number	Percent
Low	84	26.9	2	25.0	4442	32.5
Moderate	111	35.6	4	50.0	4482	32.8
High	117	37.5	2	25.0	4748	34.7
	312	100.0	8	100.0	13,672	100.0

finding and retirement where people tend to have settled in. Relatedly, the leaving population is characterized by either very low or very high amounts of experience (Table 24).

Characteristics of work settings influence the rates at which people leave the school system. Proportionately, more people are leaving from elementary school positions than from high school positions (Table 25). They leave disproportionately from schools whose faculty have relatively less formal education (Table 26), yet who are relatively experienced (Table 27). They leave from schools with relatively high teacher absenteeism (Table 28), and low to moderate proportions of minority faculty members (Table 29). Proportionately more teachers leave from schools with low student absenteeism (Table 30), low proportions of non-white pupiles (Table 31), and with proportionately low numbers of students reading one or more years behind grade level (Tables 32 and 33).

The profile of the schools which generate leavers is striking. The teachers are less formally trained, have higher rates of absenteeism, have relatively few minority faculty, and extensive numbers of years on the job. The students on the other hand attend regularly, have few minority peers, and do well in school! If anything, the data suggest that "poor" working conditions associated with certain types of student bodies are not driving teachers from the school systems. If anything, it appears that the conditions associated with the "quality" of their peers have a stronger influence on the quality of working conditions than those associated with student bodies.

Entering the Workforce. One of the more powerful means for changing the quality of the workforce is recruitment from outside

TABLE 40

ENTRANTS TO THE ELEMENTARY SCHOOL TEACHING WORKFORCE INTO SCHOOL WITH EXPERIENCED AND INEXPERIENCED STAFFS

Staff Experience (Years of Service)	Entering Classroom Teaching Positions from "outside"		Entering Non-classroom Teaching Positions from outside		Total School-based Elementary Teacher Workforce	
	Number	Percentage	Number	Percentage	Number	Percentage
Inexperienced	107	34.4	3	37.5	4,568	33.4
Moderately Experienced	113	36.3	3	37.5	4,478	32.8
Experienced	91	29.3	2	25.0	4,624	33.8
	311	100.0%	8	100.0%	13,670	100.0%

TABLE 41

ENTRANTS TO THE ELEMENTARY SCHOOL TEACHING WORKFORCE INTO SCHOOLS WITH LOW AND HIGH TEACHER ABSENTEEISM

Degree of Absenteeism	Entering Classroom Teaching Positions from "outside"		Entering Non-classroom Teaching Positions from outside		Total School-based Elementary Teacher Workforce	
	Number	Percentage	Number	Percentage	Number	Percentage
Below Median	134	42.5	3	37.5	6,399	46.4
Above Median	181	57.5	5	62.5	7,393	53.6
	315	100.0%	8	100.0%	13,792	100.0%

to positions within the organization. This does not imply that the ability to significantly alter the quality of the workforce rests solely or even largely with personnel recruiters. The education requirements, wages and working conditions are such that only certain types of people and not others are attracted to public school teaching in general and the Chicago public schools in particular. Nonetheless, many personnel policies adopted and carried out in the Chicago Public Schools affects the qualities of those recruited into the system.

Consider the policy of recruitment from within versus the policy of recruitment from outside. The widely held perception of public school systems is that their career patterns resemble those found in the military i.e., recruitment from the outside is restricted largely to the lowest rungs on the career ladder and recruitment to higher rungs is limited largely to internal upward mobility. Under conditions of decline this option of renewal through external recruitment is severely restricted, and recruitment to higher ranks is limited largely to internal pools of candidates. Nonetheless, the data for Chicago reveal trends that, at least on the surface, are counter-intuitive.

As we saw earlier, during the period in which data are available, there are more people coming into the school system than are leaving it despite relatively dramatic declines in enrollment. People enter the system at virtually all levels in the organization in proportions that are not dramatically dissimilar from the rest of the workforce. The great bulk of new entrants are placed in classroom positions although these continue to be a declining proportion of all positions.

TABLE 42

ENTRANTS TO THE ELEMENTARY SCHOOL TEACHING WORKFORCE IN SCHOOLS WITH VARYING PROPORTIONS OF MINORITY FACULTY MEMBERS

Proportion of Minority Faculty Members	Entering Classroom Teaching Positions From "Outside"		Entering Non-classroom Teaching Positions From "Outside"		Total School-based Elementary Teacher Workforce	
	Number	Percentage	Number	Percentage	Number	Percentage
Low	91	29.0	5	62.5	4,267	31.1
Moderate	110	35.0	2	25.0	4,227	30.8
High	113	36.0	1	12.5	5,241	38.2
	314	100.0%	8	100.0%	13,735	100.0%

TABLE 43

ENTRANTS TO THE ELEMENTARY SCHOOL TEACHING WORKFORCE IN SCHOOLS WITH LOW AND HIGH STAFF TURNOVER

Degree of Turnover	Entering Classroom Teaching Positions from "Outside"		Entering Non-Classroom Teaching Positions from "Outside"		Total School-based Teacher Workforce (Elementary School)
	Number	Percentage	Number	Percentage	
Low	58	18.6	2	25.0	29.9
Medium	111	35.7	2	25.0	30.3
High	142	45.7	4	50.0	39.8
	311	100.0%	8	100.0%	100.0%

In all positions, except elementary classroom teacher, entrants are disproportionately male. Entrants to the position of administration and principal tend to be disproportionately White, whereas those to the position of assistant principal tend to be disproportionately Black (Table 34). For someone entering a classroom teaching position from the outside, the chances of entering at the elementary level are proportionately higher, although fewer in number. The chances of entering a nonclassroom position from the outsdie are proportionately greater at the high school level (Table 35).

Representatives from all age groups are entering classroom teaching positions from the outside, although there are proportionately more in the category of under 25 years of age. About 1/3 of those entering the labor force from the outside are over 40 years of age. This is not dissimilar from the proportion of the total workforce who is 40 years of age or over (Table 36). Although people of all ages are entering classroom positions from outside the school system, it appears that nonclassroom school-based teaching positions are limited largely to younger personnel. Only a little over 13% of entrants to nonclassroom teaching positions are 40 years of age or over.

Those entering the workforce through nonclassroom teaching positions appear to have much less experience than those who enter the workforce through classroom teaching positions (Table 37). This raises some interesting questions about probabilities of promotion and the value attached to experience in considering promotion probabilities. If nonclassroom teaching positins are considered in some sense a "promotion" out of the classroom, and if years of exper-

TABLE 44

ENTRANTS TO THE ELEMENTARY SCHOOL TEACHING WORKFORCE
INTO SCHOOLS WITH HIGH AND LOW PROPORTIONS OF NON-WHITE PUPILS

Proportion of Non-White Pupils	Entering Classroom Teaching Positions from "Outside" Number	Percent	Entering Non-Classroom Teaching Positions from "Outside" Number	Percent	Total School-based Elementary Teacher Workforce Number	Percent
Low	59	18.8	2	25.0	2678	19.5
Moderate	47	15.0	4	50.0	2303	16.7
High	208	66.2	2	25.0	8774	63.8
	314	100.0%	8	100.0%	13,755	100.0%

TABLE 45

ENTRANTS TO THE ELEMENTARY SCHOOL TEACHING WORKFORCE IN SCHOOLS WITH
VARYING PROPORTIONS OF STUDENT ABSENTEEISM

Proportion of Student Absenteeism	Entering Classroom Teaching Positions From "Outside" Number	Percentage	Entering Non-classroom Teaching Positions From "Outside" Number	Percentage	Total School-based Elementary Teacher Workforce Number	Percentage
High	117	37.1	4	50.0	5,132	37.3
Moderate	115	36.5	4	50.0	5,408	39.3
Low	83	26.3	0	0.0	3,231	23.5
	315	100.0%	8	100.0%	13,771	100.0%

ience are considered to have added to the value of a teacher, it would seem logical that more rather than less experienced teachers would be recruited for nonclassroom teaching positions outside the school system. As this is not the case, it calls into question: 1) whether moving to a nonclassroom teaching position is in fact a "promotion" and 2) whether added years of experience are, in fact, considered to add to the net value of a teacher.

Perhaps part of the clarification of this apparent puzzling situation may lie in the work related attitudes and training of the individual involved. Although we do not have data on the formal training of entrants to the workforce, we do have some inferential data of their work-attitudes. Members of the workforce take varying numbers of days off during the school year, although in individual cases there are circumstances which force a teacher to take large numbers of days off during the school year. On the average, we would presume that teachers who take fewer days off on the average have a more positive attitude about their workplace. If this is true, then entrants to nonclassroom school-based teaching positions appear to have significantly more positive attitudes regarding work than the remainder of the workforce. About 21% of the total workforce took relatively few days off during the 1977-78 school year, while over 2/3 of the entrants to the nonclassroom school-based teaching positions took relatively few days off during this time.

The difficulty of making this assumption is born out be an examination of the data for the entering classroom teachers. It is true that proportionately more of them took relatively few days off compared to the total workforce. But it also is true that

TABLE 46

ENTRANTS TO THE ELEMENTARY SCHOOL TEACHING WORKFORCE IN SCHOOLS WITH VARYING PROPORTIONS OF STUDENTS READING ONE OR MORE YEARS BEHIND GRADE LEVEL

Proportion of Students Reading One or More Years Behind Grade Level	Entering Classroom Teaching Positions From "Outside"		Entering Non-classroom Teaching Positions From "Outside"		Total School-based Elementary Teacher Workforce	
	Number	Percentage	Number	Percentage	Number	Percentage
Low	97	30.8	2	25.0	4,745	34.5
Moderate	88	27.9	4	50.0	4,394	32.0
High	130	41.3	2	25.0	4,611	33.5
	315	100.0%	8	100.0%	13,750	100.0%

TABLE 47

ENTRANTS TO THE ELEMENTARY SCHOOL TEACHING WORKFORCE IN SCHOOLS WITH VARYING PROPORTIONS OF STUDENTS READING TWO OR MORE YEARS BEHIND GRADE LEVEL

Proportion of Students Reading Two or More Years Behind Grade Level	Entering Classroom Teaching Positions From "Outside"		Entering Non-classroom Teaching Positions From "Outside"		Total School-based Elementary Teacher Workforce	
	Number	Percentage	Number	Percentage	Number	Percentage
Low	100	32.3	5	62.5	4,490	33.6
Moderate	96	31.0	2	25.0	4,260	31.9
High	114	36.8	1	12.5	4,602	34.5
	310	100.0%	8	100.0%	13,352	100.0%

proportionately more of these entrants took an exceptionally high number of days off in proportion to the rest of the workforce (Table 38).

The characteristics of the work place (level of school, characteristics of faculty and students) are quite a bit less powerful in explaining differences in entry patterns than they were in explaining the patterns of leavers. This is probably to be expected for at least two reasons. Individuals leaving their position with the school system have, by definition, a more accurate picture of actual working conditions than do individuals who are contemplating working for the school system. Consequently, entering educators will be distributed to a wide variety of jobs, both desireable and not to desireable, whereas those electing to leave the system are more likely to leave from predominantely less desireable positions.

There were disproportionate entry opportunities among schools whose teachers had relatively less formal education beyond the bachelor's degree (Table 39), in schools whose faculty were relatively inexperienced (Table 40), whose teachers were relatively more absent (Table 41), schools whose faculties were neither heavily minority nore heavily white (Table 42), and of course, schools whose staff was characterized by relatively high degrees of turnover (Table 43). In each of these cases the "distortions" of the entering group compared to the total workforce were less pronounced than were the "distortions" which characterized individuals leaving the school system. In fact, pupil characteristics associated with the entrants' schools (proportion of nonwhite pupils, student absenteeism, and reading levels) are barely distinguishable from the student characteristics in the entire elementary school workforce (Table 44-47).

TABLE 48

FIVE YEAR PROJECTION - TOTAL WORKFORCE, CONSTANT NUMBER OF ENTRANTS*

Positions	Year - 1	2	3	4	5
Administration	646	636	626	616	607
Principal	551	579	607	635	663
Assistant Principal	397	369	347	331	319
Teacher - Non School	1352	1346	1341	1337	1332
Teacher - High School Non Classroom	268	323	361	387	405
Teacher - High School Classroom	8187	8225	8278	8341	8408
Teacher - Elementary School - Non Classroom	588	717	823	912	985
Teacher - Elementary School - Classroom	13324	13360	13414	13483	13562
Adjunct	519	548	576	604	632
Total	25,832	26,103	26,373	26,646	26,913

* Assumes constant (1978-79) rate of entry (546/year) and constant proportions of entrants across positions.

TABLE 49

FIVE YEAR PROJECTION - TOTAL WORKFORCE, NO ENTRANTS*

Positions	Year - 1	2	3	4	5
Administration	646	625	604	584	565
Principal	551	568	585	602	618
Assistant Principal	397	358	327	302	283
Teacher - Non School	1352	1323	1294	1266	1239
Teacher - High School Non Classroom	268	316	347	365	376
Teacher - High School Classroom	8187	8089	8006	7933	7866
Teacher - Elementary School - Non Classroom	588	709	803	875	932
Teacher - Elementary School - Classroom	13324	13044	12790	12556	12340
Adjunct	519	530	541	551	561
Total	25,832	25,562	25,297	25,035	24,780

* Assumes no new entrants after Year 1.

Tracing out the implications of manpower flows. Long run qualitative changes in the workforce are difficult to identify, most especially in organizations characterized by low rates of turnover. In order to ascertain the implications of the personnel movement in low-turnover organizations we need to trace individual changes over a multi-year period of time. A variety of methods of extrapolation and forecasting exist to do this. The challenge inherent in using such methods lies in carefully examining the assumptions upon which the forecasts are based. In creating five year forecasts we have made the following assumptions:

(1) Student enrollments will likely continue to decline;

(2) The size of the workforce may increase, but based largely on reports of layoffs, large scale demotions, and other personnel actions reported over the last year, staff size may shrink;

(3) Our forecasts should attempt to illuminate the effects of personnel policies, not strive for accuracy in the estimated numbers.

Because of the uncertainty inherent in estimating procedures, we have created two sets of staff estimates, one portraying modest growth and the other portraying modest decline. The growth scenario portrays the education workforce of the Chicago schools as essentially a continuation of current trends. Under this assumption, staff size would increase to 26,913 at the end of the fifth planning year. (Table 48).

The decline assumption, alternatively, forecasts a total education workforce of 24,780 at the end of the fifth planning year. (Table 49).

TABLE 50

Change in Overall Composition of Workforce *
Between Year 0 and Year 5 (%)

Positions	Year 0	Year 5	% Change
Administration	2.7	2.3	-.4
Principal	2.1	2.5	+.4
Assistant Principal	1.7	1.1	-.6
Teacher - Non School	5.3	5.0	-.3
Teacher - High School Non Classroom	.7	1.5	+.8
Teacher - High School Classroom	32.0	31.7	-.3
Teacher - Elementary School - Non Classroom	1.7	3.8	+2.1
Teacher - Elementary School - Classroom	52.9	49.8	-3.1
Adjunct	1.9	2.3	+.4
Total	100%	100%	

*No entrants after Year 1.

TABLE 51

COMPOSITION OF WORK FORCE BY POSITION IN FIVE YEARS (%)

Positions	No Entrants after Year 1					Constant Number of Entrants				
	Female	Male	Black	White	Total	Female	Male	Black	White	Total
Administration	1.4	4.3	2.1	2.0	2.3	1.5	4.1	2.1	2.1	2.3
Principal	1.1	5.2	1.6	3.2	2.5	1.1	5.2	1.8	3.3	2.5
Assistant Principal	1.1	1.5	1.0	1.7	1.1	1.1	1.6	1.1	1.6	1.2
Teacher - Non School	5.7	3.4	3.4	4.1	5.0	5.7	3.5	3.5	4.0	5.0
Teacher - High School Non Classroom	.7	4.5	1.3	1.0	1.5	.7	4.4	1.2	1.0	1.5
Teacher - High School Classroom	24.4	47.7	30.6	33.7	31.7	24.4	47.3	30.3	34.7	31.2
Teacher - Elementary School - Non Classroom	3.3	5.2	2.5	2.3	3.8	3.2	5.1	2.4	1.9	3.7
Teacher - Elementary School - Classroom	59.9	25.4	55.6	47.7	49.8	61.6	25.8	55.6	49.2	50.4
Adjunct	2.4	2.8	1.9	2.2	2.3	2.6	2.9	2.0	2.3	2.4
Total*	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

*Approximate due to rounding error

It was arrived at by using the somewhat harsh assumption that there will be no new entrants to the school system after the first planning year. We feel that these two scenarios probably provide an upper and lower bracket between which the most realistic forecast is likely to lie.

What will the workforce look like five years from now? The percent of the education workforce actually engaged in classroom teaching will have dropped to nearly 81%. Nonclassroom teachers (excluding adjuncts and specialists) will make up nearly 10% of the educational workforce (Table 51). The interaction of promotion policies, plus exit and entry patterns will change the race and sex composition of the educational workforce. The degree of change over the five year period will be minimal due largely to the very low rate of turnover and growth in the organization. Even under direct comparison with each other the alternative five year futures do not appear dramatically different in terms of race and sex composition across the ranks (Table 51). Because of this we will use only the conservative estimate in the remainder of the analyses.

Given current transfer policies, entering and leaving trends, what will the five year impact be on four major subgroups in the school system? There are at least two ways to answer the question: one, in terms of changes in the "spread" of a subgroups across positions; two, in terms of changes in the proportion of workers in a particular position that the subgroups represents. In the first instance we estimate the % of subgroup X who are in position Y; in the second instance we estimate the percent of individuals in position Y who are also part of subgroup X.

TABLE 52

CHANGE IN COMPOSITION OF SUBGROUPS ACROSS POSITIONS*
BETWEEN YEAR 0 AND YEAR 5 (%)

	Female			Male			Black			White		
	Year 0	Year 5	0-5	Year 0	Year 5	0-5	Year 0	Year 5	0-5	Year 0	Year 5	0-5
Administration	1.7	1.4	- .3	4.5	4.3	- .2	2.5	2.1	- .4	2.4	2.0	- .4
Principal	1.0	1.1	+ .1	4.4	5.2	+ .8	1.6	1.6	0	2.8	3.2	+ .4
Assistant Principal	1.3	1.1	- .2	2.8	1.5	-1.3	1.8	1.0	- .8	1.9	1.7	- .2
Teacher - Nonschool	6.0	5.7	- .3	3.6	3.4	- .2	3.5	3.4	- .1	4.3	4.1	- .2
Teacher - High School Nonclassroom	1.4	.7	- .7	1.4	4.5	+3.1	.7	1.3	- .6	.6	1.0	+ .4
Teacher - High School Classroom	24.2	24.4	+ .2	50.3	47.7	-2.6	30.4	30.6	+ .2	35.2	33.7	-1.5
Teacher - Elementary School - Nonclassroom	1.7	3.3	+1.6	1.7	5.2	+3.5	1.2	2.5	+1.3	1.2	2.3	+1.1
Teacher - Elementary School - Classroom	61.6	59.9	-1.7	29.7	25.4	-4.3	56.7	55.6	-1.1	49.6	47.7	-1.9
Adjunct	2.1	2.4	+ .3	1.5	2.8	+1.3	1.7	1.9	+ .2	2.1	2.2	+ .1
Totals**												

*Estimates based on no new entrants after Year 1.

**Approximate due to rounding error.

The changes in spread across positions are due in large part to the chance in the occupational structure of the school system in five years, e.g., more adjunct positions, fewer elementary school classroom positions. Smaller proportions of all four subgroups are expected in the following positions: central office administration, assistant principal, teacher central office, and teacher elementary school classroom. Alternatively, all four subgroups are expected to have constant or larger proportions in principal, elementary school nonclassroom and adjunct or specialist positions (Table 52).

Larger proportions of females and blacks will be found in the high school classroom. Larger proportions of males and whites will be found in teacher, high school nonclassroom positions. Overall changes in the composition of subgroups is not major (Tables 53). The proportion of males in the workforce will increase less than one percent. Both Blacks and Whites will slightly increase their overall representation to 40% and 50% respectively.

More pronounced changes, of course, occur within each occupational category. Males will be more heavily represented within central office administration, nonclassroom teaching positions at the high school and elementary levels, and within the adjunct/specialist positions. Females will be more heavily represented within the assistant principal and classroom teaching positions. Blacks will be more heavily represented within central administration, teacher central office, classroom teachers, and adjunct/specialist positions. Whites will be more heavily represented within assistant principal, and all teaching positions except nonclassroom high school. (Table 53).

TABLE 53

CHANGE IN COMPOSITION OF SUBGROUPS WITHIN POSITIONS BETWEEN YEAR 1 AND YEAR 5 (2)

	Male			Female			Black			White		
	Year 1	Year 5	1-5	Year 1	Year 5	1-5	Year 1	Year 5	1-5	Year 1	Year 5	1-5
Administration	53	57	+4	47	43	-4	37	38	+1	46	45	-1
Principal	64	64	0	36	36	0	29	26	-3	68	67	-1
Asst. Principal	46	39	-7	54	61	+7	40	35	-5	61	80	+19
Teacher - Nonschool	21	21	0	79	79	0	26	28	+2	41	43	+2
Teacher - High School Nonclassroom	67	90	+23	33	10	-23	35	32	-3	37	34	-3
Teacher - High School Classroom	47	46	-1	53	54	+1	38	39	+1	55	56	+1
Teacher - Elementary School - Nonclassroom	33	42	+9	67	58	-9	28	27	-1	34	31	+3
Teacher - Elementary School - Classroom	17	15	-2	83	85	+2	43	45	+2	48	50	+2
Adjunct	26	38	+12	74	62	-12	34	34	0	53	51	-2
Total	30	30	0	70	69	-1	39	40	+1	50	51	+1

Conclusions and Discussion. When viewed through the particular lens of opportunity for advancement through increasingly responsible positions, public school education has never been seen as a particularly attrative career: clearly public school educators have viewed other job benefits more highly. However, during growth periods those individuals interested in career advancement through promotion had a modicum of opportunities. Turnover rates of 10-12% coupled with growth rates of 1-2% created vacancies enabling districts to hire recently trained teachers and to promote the most able among their experienced personnel.

Promotions involved increasing responsibility and peer recognition usually along a widely recognized career path from classroom teacher to entry administration (coordinator, assistant principal) to principal to district superintendent. These pathways have eroded almost to the point of not being recognized. The causes of this are manifast and usually associated with enrollment decline, increasing state and federal encroachment requiring proportionately more staff specialists in special programs, relatively recent enforcement of affirmative action policies, and many district-specific issues.

While we have had the opportunity to look closely at one district and describe there chances in some detail, we have also been struck by how little is known about the teaching workforce both in Chicago and generally. Opposing forces are at work and their impact on workforce quality is unclear. For example, the S.A.T. scores of recently graduated education majors is now the second lowest of any group of declared majors in college. (Ethnic studies is the lowest.) If we subscribe to the research showing that verbal ability of teachers

strongly influences student achievement, the long run prognosis for the public education workforce is not good. Other, more financially rewarding jobs, have recently become available, women and minorities, giving the most capable of these groups career options which they did not have earlier. These and other factors, the argument goes, act slowly but surely, to downgrade the relative position of public school educator. However, at least in the opinion of some educational administrators, the quality of entrants to the education workforce in recent years has never been higher. School districts are getting fewer applicants from those seeking teaching jobs for the "wrong" reasons, e.g., avoiding the draft, easy work, lack of access to other professions. This, plus the excess supply of applicants for most positions, the argument goes, is bringing into the schools more "dedicated" educators.

These contrasting pictures portray an important unfulfilled objective of this study - to attempt to measure changes in the professional quality of the workforce. We were not able to make use of data which would be directly helpful in this regard: test scores (S.A.T., N.T.E., G.R.E., etc.), undergraduate institution and major, graduate performance, certificates held, job ratings. These data are generally unavailable across the country, at least in a form that is linked to individual mobility. However, as the demand for "quality" measures increases, this may change.

Other unanswered questions remain. For example, what proportion of the "leavers" were laid off, and what proportion decided to leave of their own volition? Of those laid off, what proportion would (and could) have undertaken additional training in order to qualify for one

of the positions filled by the "entrants"? Should District 299 encourage, even financially support such an activity? Would knowledge of career path opportunities influence the career choices of individuals in the system? What specific job titles will lead to more rapid career development in the future?

The final, yet-to-be-answered question of the study is: "How do the career patterns of educational workforce in the Chicago Public Schools compare with those of public school educators in general?" It is not necessarily valid to conclude that all data from Chicago are representative of all public education. This is the subject of the subsequent report, due out in May of 1981, entitled, "Career Patterns of the Educational Workforce."

End Notes

1 The First National Bank of Chicago, Chicago Board of Education: A Comparative Study, May 25, 1977, p. 3.

2 Ibid.

3 For a discussion of methods for assessing the interaction of fixed cost and enrollment declines see G. C. Hentschke "The Financial Impact of Enrollment Decline," Education Economics, May-June 1977, Vol. II, No. 5, pp. 10-15.

4 See for example the corresponding changes in the consumer price index below:

	IIIQ 1968 to IIQ 1975	IIIQ 1968 to IIQ 1975
New York	51.9%	20.0%
Los Angeles	50.0	27.1
Chicago	48.5	24.9
Detroit*	46.4	19.8
Houston	54.8	29.3
Cleveland	50.1	26.5
Milwaukee	49.4	26.6
Dallas	49.4	24.7

* Changes computed from IIIQ 1967 and IIIQ 1971 to IIQ 1974. Source: The First National Bank of Chicago, op. cit., p. 5.

5 Ibid., p. 5.

6 Ibid., p. 7.

7 Ibid., p. 5.

8 The cumulative excess (deficiency) of revenues of the primary operating funds for nine urban systems over the past three years is presented below. (Primary operating funds are net of borrowing, capital outlay, and non-recurring gains or losses.)

	Amount (Millions)	Percent of Revenues
Los Angeles	$ 34.2	1.3%
Chicago	(17.7)	(0.9)
Philadelphia	(13.0)	(0.9)
Detroit	0.7	0.1
Cleveland	(14.9)	(3.2)
San Diego	2.1	0.5
Memphis	0.4	0.1
Milwaukee	25.4	4.9
St. Louis	(8.1)	(3.2)

Ibid., p. 13.

9 The First National Bank of Chicago, op. cit., pp. 10, 17.

10 Charles Benson, William Hartman, Michael Kirst, and Louis Stoll. N/E Contract 400-76-0064, September, 1977.